ORDINANCE NO. 1227

STORMWATER MANAGEMENT ORDINANCE

AN ORDINANCE PROMOTING THE HEALTH, SAFETY AND GENERAL WELFARE OF THE CITIZENS OF WILLMAR, MINNESOTA ADOPTING STORMWATER MANAGEMENT PRACTICES.

1. STATUTORY AUTHORIZATION

1.1 This ordinance is adopted pursuant to Minnesota Statutes Section 462.351 (1990).

1.2 The most current version of the General Permit Authorization to Discharge Storm Water Associated with Construction Activity under the National Pollutant Discharge Elimination System/State Disposal System Permit Program administered by the Minnesota Pollution Control Agency shall govern for water quality. All rate control requirements in this ordinance shall remain in effect as-is.

2. FINDINGS

The City of Willmar hereby finds that uncontrolled and inadequately planned use of wetlands, woodlands, natural habitat areas, areas subject to soil erosion and areas containing restrictive soils adversely affects the public health, safety and general welfare by impacting water quality and contributing to other environmental problems, creating nuisances, impairing other beneficial uses of environmental resources and hindering the ability of the City of Willmar to provide adequate water, sewage, flood control, and other community services. In addition, extraordinary public expenditures may be required for the protection of persons and property in such areas and in areas which may be affected by unplanned land usage.

3. PURPOSE

The purpose of this ordinance is to promote, preserve and enhance the natural resources within the City of Willmar; to protect them from adverse effects occasioned by poorly sited development or incompatible activities; to regulate land-disturbing or development activities that would have an adverse and potentially irreversible impact on water quality, stormwater runoff rates/volumes, and unique and fragile environmentally-sensitive land; to alleviate current flooding problems and prevent future flooding problems; to minimize conflicts and encourage compatibility between land-disturbing and development activities and water quality and environmentally sensitive lands; and to require detailed review standards and procedures for land-disturbing or development activities proposed for such areas, thereby achieving a balance between urban growth and development and protection of water quality, water quantity and natural areas.

4. DEFINITIONS

For the purposes of this ordinance, the following terms, phrases, words, and their derivatives shall have the meaning stated below. When not inconsistent with the context, words used in the present tense include the future tense, words in the plural number include the singular number, and words in the singular number include the plural number. The word “shall” is always mandatory and not merely directive.

4.1 Applicant. Any person who wishes to obtain a building, excavation, or grading permit, or zoning or subdivision approval.

4.2 Architect. An architect is a person duly registered or authorized to practice architecture in the State of Minnesota.

4.3 Bedrock. Bedrock is in-place solid rock.

4.4 Best Management Practices (BMP). Best management practice is a technique or series of techniques which are proven to be effective in controlling runoff, erosion, and sedimentation.

4.5 Bluff. A topographic feature such as a hill, cliff, or embankment having the following characteristics (an area with an average slope of less than 18 percent over a distance of 50 feet or more shall not be considered part of the bluff):a) Part or all of the feature is located in a shoreland area;

b) The slope rises at least twenty-five feet (25') above the ordinary high water level of the water body;

c) The grade of the slope from the toe of the bluff to a point twenty-five feet (25') or more above the ordinary high water level averages thirty percent (30%) or greater; and

d) The slope must drain toward the water body.

4.6 Borrow. A borrow is earth material acquired from an off-site location for use in grading on a site.

4.7 Civil Engineer. A civil engineer is a professional engineer registered in the State of Minnesota to practice in the field of civil works.

4.8 Clearing and Grubbing. Clearing and grubbing is the cutting and removal of trees, shrubs, bushes, windfalls and other vegetation including removal of stumps, roots, and other remains in the designated areas.

4.9 Control measure. A practice or combination of practices to control erosion and resulting pollution.

4.10 Detention facility. A permanent natural or man-made structure, including wetlands, for the temporary detention of storm and snowmelt runoff water.

4.11 Developer. A developer is any person, firm, corporation, sole proprietorship, partnership, state agency, or political subdivision thereof engaged in a land disturbance activity.

4.12 Drainage Ordinance Map/Drainage Plan Map. A map classifying areas of the city based on the drainage system's capacity to handle existing and future potential stormwater flow.

4.13 Erosion. Erosion is the wearing away of the ground surface as a result of the movement of wind, water, ice, and/or land disturbance activities.

4.14 Erosion and Sediment Control Plan. Erosion and sediment control plan is a plan which includes a set of best management practices or equivalent measures designed to control surface runoff and erosion, and to retain sediment on a particular site during the period in which pre-construction and construction-related land disturbances, fills, and soil storage occur, and before final improvements are completed, all in accordance with the specific requirements set forth in Section 8. An

erosion and sediment control plan is part of the stormwater management plan submittal.

4.15 Excavation. Excavation is the mechanical removal of earth material.

4.16 Fill. Fill is a deposit of soil or other earth materials placed by artificial means.

4.17 Flood fringe. The portion of the floodplain outside the floodway.

4.18 Floodplain. The areas adjoining a watercourse or water basin that have been or may be covered by a regional flood.

4.19 Floodway. The channel of the watercourse, the bed of water basins, and those portions of the adjoining floodplains that are reasonably required to carry and discharge floodwater and provide water storage during a regional flood.

4.20 General Storm Water Permit. A general storm water permit is the Minnesota Pollution Control Agency's (MPCA) general National Pollutant Discharge Elimination System (NPDES) construction storm water permit covering anyone conducting a land-disturbing activity which disturbs five (5) or more acres of total land area.

4.21 Grade. The grade is the vertical location of the ground surface.

a) Existing grade is the grade prior to grading.

b) Rough grade is the stage at which the grade approximately conforms to the approved plan.

c) Finish grade is the final grade of the site which conforms to the approved plan.

4.22 Hydric soils. Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

4.23 Hydrophytic vegetation. Macrophytic plant life growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content

4.24 Intensive Vegetation Clearing. The complete removal of trees or shrubs in a contiguous patch, strip, row, or block.

4.25 Land Disturbance Activity: Land disturbance activity is any land change that may result in soil erosion from wind, water and/or ice and the movement of sediments into or upon waters, lands, or rights-of-way within the City of Willmar, including but not limited to building demolition, clearing and grubbing, grading, excavating, transporting and filling of land. Land disturbance activity does not include the following:

a) Minor land disturbance activities including, but not limited to, underground utility repairs, home gardens, minor repairs, and maintenance work which do not disturb more than five hundred (500) square feet of land.

b) Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles.

c) Emergency work to protect life, limb, or property and emergency repairs. If the land-disturbing activity would have required an approved Erosion and Sediment Control Plan except for the emergency, then the land area disturbed shall be shaped and stabilized in accordance with the requirements of Section 8.

4.26 Outfall. The outfall is the point of discharge to any watercourse from a public or private stormwater drainage system.

4.27 Person. Any individual, firm, corporation, partnership, franchisee, association or governmental entity.

4.28 Public waters. Waters of the state as defined in Minnesota Statutes, section 103G.005, subdivision 15.

4.29 Regional flood. A flood that is representative of large floods known to have occurred generally in the state and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of a 100-year recurrence interval.

4.30 Retention facility. A permanent structure that provides for the storage of stormwater runoff by means of a permanent pool of water.

4.31 Sediment. Solid matter carried by water, sewage, or other liquids.

4.32 Sanitary Sewer System. The combination of public and private pipelines or conduits, pumping stations, and force main pipe, and all other construction, devices, appliances, or appurtenances used for conducting sewage or industrial waste or other wastes to a point of ultimate disposal in a public sewage treatment facility.

4.33 Storm Sewer System. The combination of public and private pipelines or conduits, pumping stations and force main piping and all other construction, devices, appliances, or appurtenances used for conveying stormwater runoff and snowmelt runoff to various locations throughout the city.

4.34 Stormwater Management Plans. Drainage computations, grading plan, and erosion control plan.

4.35 Structure. Anything manufactured, constructed or erected which is normally attached to or positioned on land, including portable structures, earthen structures, roads, parking lots, utilities, and paved storage areas.

4.36 Utility. Utility is the owner/operator of any underground facility including an underground line, facility, system, and its appurtenances used to produce, store, convey, transmit, or distribute communications, data, electricity, power, heat, gas, oil, petroleum products, water (including stormwater), steam, sewage, and other similar substances.

4.37 Wetlands. Lands, transitional between terrestrial and aquatic systems where the water table is usually at or near the ground surface or the land is covered by shallow water. For purposes of this definition, wetlands must have the following three attributes:

a) Have a predominance of hydric soils;

b) Are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and

c) Under normal circumstances support a prevalence of such vegetation.

5. SCOPE AND EFFECT

5.1 Applicability. The following three permits/reviews may be required from the city for a project/construction activity:

5.1.1 Building Permit: Required for construction of buildings or building modifications. This permit is obtained from the City's Building Official. This ordinance addresses only those building permit requirements pertaining to the grading plan review.

5.1.2 Excavation Permit: Required for work in the public rights-of-way in the city. This permit is obtained from the City Engineer. This ordinance does not address the requirements for excavation permits.

5.1.3 Grading Plan Review: Required when any land disturbance activity will disturb more than one acre of land. This review is performed by the City Engineer.

a) If the area to be graded is less than five (5) acres and will be restored with less than one (1) acre of imperviousness, the project proposer will be required to install temporary erosion and sediment controls at locations as directed by the City Engineer or his/her representatives.

b) If the area to be graded is less than five (5) acres and will be restored with one (1) acre or more of impervious surface, the grading plan must include a stormwater management plan (see Section 6 of this ordinance) that is approved by the City Engineer or his/her representatives.

c) If the area to be graded is five (5) or more acres and will be restored with one (1) acre or more of impervious surface, the project proposer must prepare a stormwater management plan and obtain an NPDES construction stormwater permit from the MPCA.

Every applicant for a building permit must submit a grading plan and stormwater management plan, when required, to the Director of Planning and Development Services (DPDS). No building permit shall be issued until approval of the grading plan and the stormwater management plan (if required) or a waiver of the approval requirements has been obtained in conformance with the provisions of this ordinance.

5.2 Public Nuisances.

5.2.1 Policy. It is the policy of the City of Willmar to prevent and remedy the degradation of the quality of surface and ground waters as well as public and private land resources in order to protect the health, safety and general welfare of the public. All acts or failures to act by persons which may result in the degradation of such water and land resources is considered to be a public nuisance in accordance with, but not limited to, Minnesota Statutes, Section 609.74, 561.19, and 144.37, and as hereinafter specifically defined.

5.2.2 Specific Public Nuisances. The following items are public nuisances and shall be considered in violation of this ordinance:

a) Excavation and fill activities. The excavation of any material from or placement of any fill material into any watercourse, wetland, lake, or other water body without necessary local, state or federal authorizations is a public nuisance.

b) Sump pump discharge to property other than where the water originates.

5.3 Exemptions. The provisions of this ordinance do not apply to:

a) A lot for which a currently valid building permit has been approved on or before the effective date of this ordinance;

b) Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles; or

a) Emergency work to protect life, limb, or property.

5.4 Waiver. The City Council, upon recommendation of the City Engineer, may waive any requirement of this ordinance upon making a finding that compliance with the requirement will involve an unnecessary hardship and the waiver of such requirement will not adversely affect the standards and requirements set forth in this ordinance. The City Council may require as a condition of the waiver, such dedication or construction, or agreement to dedicate or construct as may be necessary to adequately meet said standards and requirements.

6. STORMWATER MANAGEMENT PLAN SUBMITTAL REQUIREMENTS

6.1 Application. A written application for stormwater management plan approval, along with the proposed stormwater management plan, shall be filed with the DPDS and shall include a statement indicating the grounds upon which the approval is requested, that the proposed use is permitted by right or as an exception in the underlying zoning district, and adequate evidence showing that the proposed use will conform to the standards set forth in this ordinance. Prior to applying for approval of a stormwater management plan, an applicant may have the stormwater management plans reviewed by the appropriate departments of the city.

Two sets of clearly legible blue or black lined copies of drawings and required information shall be submitted to the DPDS. All drawings shall be prepared to a scale appropriate to the site of the project and suitable for the review to be performed. At a minimum, the scale of the drawings shall be 1 inch equals 100 feet (1 inch equals 50 feet is preferred).

6.2 Stormwater management plan submittal materials. At a minimum, the stormwater management plan submittal materials shall contain the following information:

a) Existing site map. A map of existing site conditions showing the site and immediately adjacent areas, including:

1) The name and address of the applicant, the section, township and range, north point, date and scale of drawing and number of sheets;

2) Location of the tract by an insert map at a scale sufficient to clearly identify the location of the property and giving such information as the names and numbers of adjoining roads, railroads, utilities, subdivisions, towns and districts or other landmarks;

3) Location of the tract on a copy of the City's Drainage Ordinance Map or Drainage Plan Map which identifies the regions of the City where peak discharge and/or runoff volume requirements have been established. If a Drainage Ordinance Map or Drainage Plan Map has not been established, the peak 100-year discharge from each subwatershed in the tract in question after the proposed improvements are constructed shall be no greater than: (a) the peak 100-year discharge from the tract in its present condition; or (b) peak discharge from 10-year post development peak discharge, whichever is less;

4) Existing topography with a contour interval appropriate to the topography of the land but in no case having a contour interval greater than 2 feet;

5) A delineation performed by a certified wetland delineator (or a wetland delineator who has successfully completed a wetland delineation training course) of all streams, rivers, public waters and wetlands located on and immediately adjacent to the site;

6) Location and dimensions of existing stormwater drainage systems and natural drainage patterns on and immediately adjacent to the site delineating in which direction and at what rate stormwater is conveyed from the site for the critical 100-year storm event, identifying the receiving stream, river, public water, or wetlands and setting forth those areas of the unaltered site where stormwater collects;

7) A brief description of the soils of the site;

8) Vegetative cover and clearly delineating any vegetation proposed for removal; and

9) 100-year floodplains, flood fringes and floodways.

b) Drainage computations. For each subwatershed, computations showing the peak discharge rate and runoff volume for the 100-year rainfall storm event and 100-year snowmelt runoff volume for existing and proposed conditions of the site and the 10-year post-development peak discharge rate. The drainage computations must show that the discharge requirements for the site as referenced in the City's Drainage Ordinance map or Drainage Plan or paragraph 8.7 are met.

c) Site construction plan. A site construction plan, including:

1) Locations and dimensions of all proposed land-disturbing activities and any phasing of those activities;

2) Locations and dimensions of all temporary soil or dirt stockpiles;

3) Erosion and sediment control plan showing locations and dimensions of all construction site erosion and sediment control measures and other permanent erosion and sediment control measures necessary to meet the requirements of this ordinance;

4) Schedule of anticipated starting and completion date of each land-disturbing activity including the installation of construction site erosion and sediment control measures needed to meet the requirements of this ordinance; and

5) Provisions and schedule for maintenance of the construction site erosion and sediment control measures during construction.

d) Plan of final site conditions. A plan of final site conditions on the same scale as the existing site map showing the site changes, including:

1) Finished grading shown at contours at the same interval as provided above required "existing site map" or as required to clearly indicate the relationship of proposed changes to existing topography and remaining features (Note: finished grade contours may be shown on the "existing site map" provided the existing and final grades are clearly distinguishable from each other);

2) A landscape plan, drawn to an appropriate scale, including dimensions and distances and the location, type, size and description of all proposed landscape materials which will be added to the site as part of the development;

3) A drainage plan of the developed site delineating in which direction and at what peak discharge rate stormwater will be conveyed from the site and setting forth the areas of the site where stormwater will be allowed to collect and be managed;

4) An internal drainage plan showing the direction flows will be routed including overflow swales where water will flow if the storm sewer system has reached its capacity;

5) The proposed size, alignment and intended use of any structures to be erected on the site;

6) A clear delineation and tabulation of all areas which shall be paved or surfaced, including a description of the surfacing material to be used; and

7) Any other information pertinent to the particular project which in the opinion of the applicant is necessary for the review of the project.

7. PLAN REVIEW PROCEDURE

7.1 Process. Stormwater management plans meeting the requirements of Section 6 shall be submitted to the DPDS for review in accordance with the standards of Section 8. The City Engineer shall approve, approve with conditions, or deny the stormwater management plan. City Engineer action on the stormwater management plan must be accomplished within 45 days following the date the completed application for approval is filed with the DPDS.

7.2 Duration. Approval of a plan submitted under the provisions of this ordinance shall expire one year after the date of approval unless construction has commenced in accordance with the plan. However, if prior to the expiration of the approval, the applicant makes a written request to the DPDS for an extension of time to commence construction setting forth the reasons for the requested extension, the DPDS may grant one extension of not greater than one single year. The DPDS shall make a decision on the extension within 30 days. Any plan may be revised in the same manner as originally approved.

7.3 Conditions. A stormwater management plan may be approved subject to compliance with conditions reasonable and necessary to insure that the requirements contained in this ordinance are met. Such conditions may, among other matters, limit the size,

kind or character of the proposed development, require the construction of structures, drainage facilities, storage basins and other facilities, require replacement of vegetation, establish required monitoring procedures, stage the work over time, require alteration of the site design to insure buffering, and require the conveyance to the City of Willmar or other public entity of certain lands or interests therein.

7.4 Fees. In those instances where a stormwater management plan requires outside consultant review, a processing/review fee shall be paid by the applicant to the City.

8. GENERAL STANDARDS

8.1 Applicability. No stormwater management plan which fails to meet the standards contained in this section shall be approved by the City.

8.2 Site dewatering. Water pumped from the site shall be treated by temporary sedimentation basins, grit chambers, sand filters, upflow chambers, hydro-cyclones, swirl concentrators or other appropriate controls as appropriate. Water may not be discharged in a manner that causes erosion or flooding of the site, off-site property, receiving channels or a wetland.

8.3 Waste and material disposal. All waste and unused building materials (including garbage, debris, cleaning wastes, wastewater, toxic materials or hazardous materials) shall be properly disposed of off-site and not allowed to be carried by runoff or wind into a receiving channel or storm sewer system, or neighboring property. The site shall be policed daily by contractor and all such materials shall be collected and stored or otherwise anchored until they are properly disposed of.

8.4 Tracking. Each site shall have graveled roads, rocked access drives and parking areas of sufficient width and length to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by street cleaning (not flushing) before the end of each workday.

8.5 Drain inlet protection. All storm drain inlets shall be protected during construction until control measures are in place with a silt fence, straw bale, or equivalent barrier meeting accepted design criteria, standards and specifications contained in the MPCA publication "Protecting Water Quality in Urban Areas."

8.6 Site erosion control. The following criteria (a. through d.) apply only to construction activities that result in runoff leaving the site.

a) Channelized runoff from adjacent areas passing through the site shall be diverted around disturbed areas, if practical. Otherwise, the channel shall be protected as described below. Sheetflow runoff from adjacent areas greater than 10,000 square feet in area shall also be diverted around disturbed areas, unless shown to have resultant runoff rates of less than 0.5 $ft.^3/sec.$ across the disturbed area for the one year storm. Diverted runoff shall be conveyed in a manner that will not erode the conveyance and receiving channels.

b) All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time. If at all possible, grading operations that disturb existing vegetation or ground cover shall be placed to minimize the area of bare soil exposed at any one time.

c) Runoff from the entire disturbed area on the site shall be controlled by meeting either subsections 1 and 2 or 1 and 3.

1) All disturbed ground left inactive for fourteen or more days shall be stabilized by seeding and mulching or sodding (only available prior to September 15) or by mulching or covering or other equivalent control measures.

2) For sites with more than five acres disturbed at one time, or if a channel originates in the disturbed area, one or more temporary or permanent sedimentation basins shall be constructed. Each sedimentation basin shall have a surface area of at least one percent of the area draining to the basin and at least three feet of depth and constructed in accordance with accepted design specifications. The sedimentation basins shall be maintained regularly and sediment shall be periodically removed to maintain a depth of three feet. The basin discharge rate shall also be sufficiently low as to not cause erosion along the discharge channel or the receiving water.

3) For sites with less than five acres disturbed at one time, sedimentation basins are still encouraged. However, at a minimum, silt fences, straw bales, or equivalent control measures shall be placed along all sideslope and downslope sides of the site. If a channel or area of concentrated runoff passes through the site, silt fences shall be placed along the channel edges to reduce sediment reaching the channel. Silt fences placed in concentrated flow channels perpendicular to the flow direction shall be backed by snow fence and support posts. The use of silt fences, straw bales, or equivalent control measures must include a maintenance and inspection schedule.

d) Any soil or dirt storage piles containing more than ten cubic yards of material should not be located with the downslope toe of the pile less than 25 feet from a roadway or drainage channel. If remaining for more than seven days, dirt stockpiles shall be stabilized by mulching, vegetative cover, tarps or other means. Erosion from piles which will be in existence for less than seven days shall be controlled by placing straw bales or silt fence barriers around the pile. In-street utility repair or construction, soil or dirt storage piles located closer than 25 feet of a roadway or drainage channel must be covered with tarps or suitable alternative control, if exposed for more than seven days, and the stormdrain inlets must be protected with straw bale or other appropriate filtering barriers.

8.7 Stormwater management criteria for permanent facilities.

8.7.1 Design standards. Stormwater detention facilities required by the City of Willmar, to include water quality treatment features, shall be designed according to the most current technology as reflected in the MPCA publication "Protecting Water Quality in Urban Areas," and shall contain, at a minimum, the following design factors:

a) A permanent pond surface area for wet detention ponds or wetted area for the extended detention in modified dry ponds equal to two percent of the impervious area draining to the pond or one percent of the entire area draining to the pond, whichever amount is greater,

b) An average permanent pool depth of four to ten feet for wet detention basins;

c) Wet storage volume for wet ponds or the extended detention volume for modified dry ponds shall be equal to or greater than the runoff from the critical one-year event but in no case shall it be less than one-half inch of runoff from the entire drainage area tributary to the basin;

d) A permanent pool length-to-width ratio of 3:1 or greater;

e) A minimum protective shelf extending ten feet into the permanent pool with a slope of 10:1, beyond which slopes should not exceed 4:1 (5:1 or flatter is preferred);

f) A protective buffer strip of vegetation surrounding the permanent pool at a minimum width of 15 feet;

g) All stormwater detention facilities shall have a device to keep oil, grease, and other floatable material from moving downstream as a result of normal operations;

h) Stormwater detention facilities for new development must be sufficient to limit peak flows in each subwatershed to those that existed before the development for the 100-year storm event or the 10-year post-development discharge, whichever is less. All calculations and hydrologic models/information used in determining peak flows shall be submitted along with the stormwater management plan;

i) All stormwater detention facilities must have a forebay to remove coarse-grained particles prior to discharge into a watercourse or storage basin;

j) All overflow swales designed to pass runoff flows from part or all of the 100-year event that have a channel slope of 2 percent or steeper or other 100-year discharge velocities will exceed 4 feet per second shall be armored with permanent, non-photo-degrading erosion control materials; and

k) Control surface runoff on-site for commercial construction, less than one acre, by utilizing on-site catch basins.

8.7.2 Operations

a) An applicant shall install or construct, on or for the proposed land-disturbing or development activity, all stormwater management facilities necessary to manage increased runoff so that the 100-year storm peak discharge rates existing before the proposed development or the 10-year post-development peak discharge rate, whichever is less, shall not be increased and accelerated channel erosion will not occur as a result of the proposed land-disturbing or development activity. An applicant may also be required to make an in-kind or monetary contribution to the development and maintenance of community stormwater management facilities designed to serve multiple land-disturbing and development activities undertaken by one or more persons, including the applicant.

b) The applicant shall give consideration to reducing the need for stormwater management facilities by incorporating the use of natural topography and land cover such as wetlands, ponds, natural swales and depressions as they exist before development to the degree that they can accommodate the additional flow of water without compromising the integrity or quality of the wetland or pond.

c) The following stormwater management practices shall be investigated in developing a stormwater management plan in the following descending order of preference:

1) Natural infiltration of precipitation and runoff on-site;

2) Flow attenuation by use of open vegetated swales, and natural depressions;

3) Stormwater retention facilities; and

4) Stormwater detention facilities.

d) A combination of successive practices may be used to achieve the applicable minimum control requirements specified in subsection (a) above. Justification shall be provided by the applicant for the method selected.

8.8 Wetlands.

a) Runoff shall not be discharged directly into wetlands without presettlement of the runoff.

b) A protective buffer strip of natural vegetation at least 15 feet in width shall surround all wetlands.

c) Wetlands must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetland areas of at least equal public value in accordance with the rules adopted by the Minnesota Board of Water and Soil Resources. Replacement must be guided by the following principles in descending order of priority:

1) Avoiding the direct or indirect impact of the activity that may destroy or diminish the wetland;

2) Minimizing the impact by limiting the degree or magnitude of the wetland activity and its implementation;

3) Rectifying the impact by repairing, rehabilitating, or restoring the affected wetland environment;

4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the activity; and

5) Compensating for the impact by replacing or providing substitute wetland resources or environments.

8.9 Steep slopes. No land-disturbing or development activities shall be allowed on slopes of 18 percent or more.

8.10 Catch basins. All newly installed and rehabilitated catch basins shall be provided with a sump area for the collection of coarse-grained material. Such basins shall be cleaned when the sump areas are half filled with material.

8.11 Drain leaders. All newly constructed and reconstructed buildings will route drain leaders to pervious areas wherein the runoff can be allowed to infiltrate. The flow rate of water exiting the leaders shall be controlled so no erosion occurs in the pervious areas.

8.12 Inspection and maintenance. All stormwater management facilities shall be designed to minimize the need of maintenance, to provide access for maintenance purposes and to be structurally sound. All stormwater management facilities shall have a plan of operation and maintenance that assures continued effective removal of pollutants carried in stormwater runoff. The City Engineer, or designated representative, shall inspect all stormwater management facilities during construction, during the first year of operation, and at least once every five years thereafter. The inspection records will be kept on file at the public works department. It shall be the responsibility of the applicant to obtain any necessary easements or other property interests to allow access to the stormwater management facilities for inspection and maintenance purposes.

8.13 Models/methodologies/computations. Hydrologic models and design methodologies used for the determination of runoff and analysis of stormwater management structures shall be approved by the City Engineer. Plans, specification and computations for stormwater management facilities submitted for review shall be sealed and signed by a registered professional engineer. All computations shall be submitted with the proposed plans for review, unless otherwise approved by the Willmar director of public works.

8.14 Watershed management plans/groundwater management plans. Stormwater management plans shall be consistent with adopted Willmar Surface Water Management Plan and Kandiyohi County Groundwater Management Plans.

8.15 Easements. If a stormwater management plan involves direction of some or all runoff off of the site, it shall be the responsibility of the applicant to obtain from adjacent property owners any necessary easements or other property interests concerning flowage of water.

8.16 Building Elevations.

All lowest entry elevations (i.e., windows, window wells, walkout elevations) shall meet the following:

a) Minimum of one foot above the 100-year flood elevation for basins with pipe outlets or waterways.

b) Minimum of one foot above the 100-year landlocked basin (no piped outlet) flood level computed as follows:

Step 1 Assume the water surface elevation is one foot higher than the normal water surface elevation of the basin.

Step 2 Above the assumed water surface elevation, store the volume of water equal to 7.2 inches of runoff over the entire drainage area to the landlocked basin.

Step 3 The 100-year landlocked basin flood level is the elevation the water would rise to from the above Step 1 and Step 2 computation.

Note: The 100-year landlocked basin flood elevation may be lowered by excavating an overflow swale or constructing an outlet pipe at an overflow point.

c) Minimum of one foot above the 100-year flow elevation of the adjacent swale or channel at the point where the adjacent swale or channel is closest to the building.

9. LAWN MAINTENANCE AND VEGETATION REMOVAL

9.1 Use of impervious surfaces. No person shall apply fertilizer to or deposit grass clippings, leaves, or other vegetative materials on impervious surfaces, or within a stormwater drainage system (including yard swales), natural drainage ways, or within wetland or detention basin buffer areas.

9.2 Unimproved land areas/Vegetative cover required. Except for driveways, sidewalks, patios, areas occupied by structures or areas which have been improved by landscaping, all areas shall be covered by plants or vegetative growth.

9.3 Buffer zone. Fertilizer applications shall not be made within 15 feet of any wetland or water resource.

10. VIOLATIONS AND PENALTIES

Any person who violates any of the provisions of this Ordinance shall, upon conviction thereof, be guilty of a misdemeanor and shall be punished as provided for in the laws of the State of Minnesota. Each day that a violation is permitted to exist shall constitute a separate offense.

11. OTHER REMEDIES

For the purpose of enforcing the provisions of this Ordinance, or to prevent violations thereof, the City shall have available to it all of the lawful remedies and procedures provided by Statute or other law, including but not limited to obtaining from the Court having jurisdiction thereof restraining orders, mandatory injunctions, or other appropriate forms of relief.

12. OTHER CONTROLS

In the event of any conflict between the provisions of this ordinance and the provisions of an erosion control or shoreland protection ordinance adopted by the City Council, the more restrictive standard prevails.

13. SEPARABILITY

It is hereby declared to be the intention of the City that the several provisions of this Ordinance are separable in accordance with the following:

a) If any court of competent jurisdiction shall adjudge any provision of this Ordinance to be invalid, such judgement shall not affect any other provisions of this Ordinance not specifically included in said judgement.

b) If any court of competent jurisdiction shall adjudge invalid the application of any provision of this Ordinance to a particular property, building, or other structure, such judgement shall not affect the application of said provision to any other property, building, or structure not specifically included in said judgement.

14. EFFECTIVE DATE

This ordinance shall be effective from and after its adoption and second publication.